PRE-APPEAL BRIEF REQUEST FOR REVIEW	Docket Number
	23230-08142

CERTIFICATE OF ELECTRONIC (EFS-WEB) TRANSMISSION	Application Number	Filed
I hereby certify that this correspondence is being transmitted via the Office electronic filing system in accordance with 37 C.F.R. § 1.8(a)(i)(C) from the Pacific Time Zone of the United States on the local date shown below.	10/661,152	9/12/2003
	First Named Inventor	
Dated: March 11, 2008 By: /Jae Won Song/	Norikazu Endo	
Jac Won Song, Reg. No. 59,070	Art Unit	Examiner
	2626	Abdelali Serrou

Applicants request review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
    Note: No more than five (5) pages may be provided.

I am the

☐   applicant/inventor.

☐   assignee of record of the entire interest.
    See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.

☐   attorney or agent of record.
    Registration number_____.

☒   attorney or agent acting under 37 CFR 1.34.

    Registration number if acting under 37 CFR 1.34 Reg. No. 59,070

/Jae Won Song/
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March 11, 2008
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below*.

☒   *Total of __1 of 1_____ forms is submitted.

REMARKS FOR PRE-APPEAL BRIEF REQUEST FOR REVIEW IN U.S. PATENT APPLICATION NO. 10/661,152 FILED ON 9/12/2003

Pre-appeal brief review is appropriate in this application, because the rejections in the September 27, 2007 Final Office Action contain clear deficiencies as set forth herein.

Response to Claim Rejections under 35 USC §102

In paragraph 3 of the Final Office Action, claims 1, 3-6, 8, 10-11, 15, 17-19, 21, 23-24, 28, 30-32, 34, 36, 40, 42-46, 48-49, 53-56, 58, and 60 were rejected as being anticipated by US Patent No. 6,757,362 issued to Cooper et al. (hereinafter "Cooper"). This rejection is traversed.

As to independent claims 1, 15, 28, 40, and 53, independent claims 1, 15, 28, 40, and 53 variously recite "... partitioning the utterance into segments; and ... assigning one of a plurality of classifications to each segment, each classification corresponding to at least one of a plurality of states of the user." In summary, the inventions of claims 1, 15, 28, 40, and 53 obtain utterance parameters that indicate the state of the user, by partitioning the utterance into segments and assigning one of a plurality of classifications to each segment, where each classification corresponds to at least one of a plurality of states of the user. A segment may be each phrase in the utterance with a minimum number of phonemes, and the starting and ending points of a segment may be determined by detecting a pause, a silence or sudden change in the utterance. Alternatively, the segments may correspond to words and pauses in the utterance and each word may be assigned a classification of a general word and a particular type of emotionally sensitive word based on speech recognition. According to the claimed inventions of 1, 15, 28, 40, and 53, **each segment** of the utterance **is assigned a classification** indicating one of a plurality of states of a user (for example, truth, stress, excitement, unsure, very stressed, voice control, etc.). Such classification assigned to each segment of the utterance is used to generate utterance parameter vectors that indicate the state of the user. Pages 8-9 (paragraphs [0021] – [0023]) of the specification illustrates various embodiments of this claim limitation, for example:

> "...[0022] In one embodiment, each segment is assigned 204 a classification indicating one of a plurality of states of a user. For example, the classifications may include P1 (truth), P2 (stress), P3 (excitement), P4 (unsure), P5 (very stressed), P6 (voice control), P7 (tense), P8 (very tense), P9 (inaccurate), PA (implausible), PB (deceiving), PC (speech speed), PD (pause ratio), PE (clearness),

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PF (drowsy), PG (tired), PH (hesitation), PI (variance of the pitch during a segment), PJ (difference in pitch from one segment to the next segment), and PK (shape of the frequency spectrum in the segment). … "

Cooper does not disclose or suggest obtaining utterance parameters that indicate the state of the user by partitioning the utterance into segments and assigning one of a plurality of classifications to **each segment**, where each classification corresponds to at least one of a plurality of states of the user (for example, P1 (truth), P2 (stress), P3 (excitement), P4 (unsure), P5 (very stressed), etc.), as recited in independent claims 1, 15, 28, 40, and 53. The 9/27/2007 office action points to col. 2, lines 58-64 of Cooper and col. 43, lines 62-67 of Cooper as disclosing this limitation. However, col. 2, lines 58-64 of Cooper merely reads:

> assistant receives. Such input could be user information, such as information about the user's experience, the time
> 60 between user sessions, the amount of time a user pauses when recording a message, the user's emotional state, whether the user uses words associated with polite discourse, and the amount of time since a user provided input to the virtual assistant during a session.

Also, col. 43, lines 62-57 of Cooper merely reads:

> Alternatively, the user information input into the virtual assistant could be information about the user's emotion, which could be based on information about the user's voice volume, word choice and speech rate. Based on such 65 information, the virtual assistant could automatically determine the user's emotional state, calm or angry, for example.

However, the above passages of Cooper merely disclose that the virtual assistant could determine the user's emotional state (calm or angry) based on information such as the user's voice volume, word choice, and speech rate, but does not disclose at all **how** the user's emotional state can be determined based on such information. The 9/27/2007 final office action states that determining the user's emotional state based on a segment or word choice discloses the above limitations of independent claims 1, 15, 28, 40, and 53. However, the above passages col. 2, lines 58-64 and col. 43, lines 62-67 of Cooper nowhere discloses or even mentions that **each segment** of the utterance is assigned a classification indicating one of a plurality of states of a user (for example, truth, stress, excitement, unsure, very stressed, voice control, etc.), which is completely different from determining the user's emotional state by a single word choice "sorry" as provided as an example in the 9/27/2007 final office action. The above disclosure of col. 43, lines 62-67 of

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Cooper merely asserts that the user's emotional state may be determined based on word choice, but does not disclose the specific way in which it can be done, which is done in the inventions of independent claims 1, 15, 28, 40, and 53 by assigning a classification to **each segment** of the utterance. In addition, the 9/27/2007 final office action does not offer any rationale, evidence, basis in fact, or technical reasoning to reasonably support that obtaining utterance parameters indicating the state of the user is done by partitioning the utterance into segments and **assigning one of a plurality of classifications to each segment** is inherent in the disclosure of Cooper.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. See MPEP §2131. Since Cooper fails to disclose that **each segment** of the utterance is assigned a classification indicating one of a plurality of states of a user as recited in independent claims 1, 15, 28, 40, and 53 either expressly or inherently, claims 1, 15, 28, 40, and 53 are patentably distinct from Cooper.

Claims 3-6, 8, 10-11, 17-19, 21, 23-24, 30-32, 34, 36, 42-46, 48-49, 54-56, 58, and 60 are dependent directly or indirectly from independent claims 1, 15, 28, 40, or 53. Thus, all arguments set forth above regarding claims 1, 15, 28, 40, or 53 with regard to Cooper are equally applicable to these dependent claims and they are also patentably distinct from Cooper for at least the same reasons as set forth above for independent claims 1, 15, 28, 40, or 53.

In addition, the 9/27/07 final office action rejects most of these dependent claims asserting allegedly inherent disclosure in Cooper without offering any rationale, evidence, basis in fact, or technical reasoning supporting such inherency, which is an improper rejection. See MPEP 2112.

As to claims 3 and 54, for example, claims 3 and 54 variously recite "…generating an utterance parameter vector based upon the utterance parameters; …converting the utterance parameter vector to an indication representing the state of the user …" The 9/27/07 final office action conclusively asserts that such limitation is inherent in analyzing speech utterances received from a user and automatically determining the user's emotional state, pointing to the above passage in col. 43, lines 62-67 of Cooper, without offering any rationale, evidence, basis in fact, or technical reasoning as to why it is inherent in Cooper that an utterance parameter vector is generated based upon the utterance parameters as recited in claims 3 and 54, where the utterance parameters are those that were assigned to each of the segments of the utterance as recited in claims 1 and 53. The 9/27/07 final office action does not explain why the utterance parameter vector must necessarily be generated in Cooper as recited in claims 3 and 54 rather than by some

other vector generation method. Note that Cooper does not even mention the term "vector" at all, let alone generating the utterance parameter vector in the manner as recited in claims 3 and 54.

As to claims 4, 17, 30, and 42, for another example, claims 4, 17, 30, and 42 variously recite the utterance parameter vector is generated by "determining the number of segments for each classification; and dividing the number of segments for each classification by a total number of segments in the utterance." The 9/27/07 final office action merely asserts that such limitation is inherent in determining speech prosody, pointing to the above passage in col. 43, lines 64-65 of Cooper, without offering any rationale, evidence, basis in fact, or technical reasoning as to why it is inherent in Cooper that the utterance parameter vector is generated by determining the number of segments for each classification and dividing the number of segments for each classification by a total number of segments in the utterance, where the utterance parameters are those that were assigned to each of the segments of the utterance as recited in claims 1, 15, 28, and 40. The 9/27/07 office action does not explain why the utterance parameter vector must necessarily be generated in Cooper as recited in claims 4, 17, 30, and 42 rather than by some other vector generation method.

Furthermore, other dependent claims 5, 18, 31, 43, and 55, and claims 6, 19, 32, 44, and 56 were rejected based upon similar assertions that the limitations of those claims are inherent in Cooper, without any offering any rationale, evidence, basis in fact, or technical reasoning explaining why they are inherent in Cooper. Such rejection based on assertion of inherency without technical reasoning is improper and clearly erroneous under settled law on inherency. To establish inherency, it must be shown why the missing elements of these dependent claims are **necessarily present** in Cooper and that it would be so recognized by persons of ordinary skill. The mere fact that a certain thing **may** result from a given set of circumstances is not sufficient. See MPEP 2112 for the Requirements of a Rejection Based on Inherency. Therefore, it is respectfully submitted that the inventions of claims 1, 3-6, 8, 10-11, 15, 17-19, 21, 23-24, 28, 30-32, 34, 36, 40, 42-46, 48-49, 53-56, 58, and 60 are patentably distinct from Cooper.

Rejections under 35 USC §103

In paragraph 4 of the Office Action, claims 7, 9, 20, 22, 33, 35, 47, 57, and 59 were rejected as being unpatentable over Cooper in view of Pelland (US Patent Application Publication No. 2002/0029203). This rejection is traversed. As with Cooper, Pelland also fails to disclose or suggest obtaining utterance parameters indicating the state of the user by partitioning the

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utterance into segments and assigning one of a plurality of classifications to each segment, where each classification corresponds to at least one of a plurality of states of the user, as recited in independent claims 1, 15, 28, 40, or 53 from which claims 7, 9, 20, 22, 33, 35, 47, 57, and 59 depend. Pelland was relied on merely for the alleged disclosure of adjusting the tone or gender, but has nothing to do with assigning one of a plurality of classifications to each segment of the utterance, where each classification corresponds to at least one of a plurality of states of the user.

Also in paragraph 5 of the Office Action, claims 12-14, 25-27, 37-39, 50-52, and 61 were rejected as being unpatentable over Cooper in view of Millie et al. ("Driver-Friendly Assistance System Interface"). This rejection is traversed. As with Cooper, Millie also fails to disclose or suggest obtaining utterance parameters that indicate the state of the user by partitioning the utterance into segments and assigning one of a plurality of classifications to each segment, where each classification corresponds to at least one of a plurality of states of the user, as variously recited in independent claims 1, 15, 28, 40, or 53 from which claims 12-14, 25-27, 37-39, 50-52, and 61 depend directly or indirectly. Millie was relied on merely for the alleged disclosure of an on-board computer used in an automobile or navigation system, but has nothing to do with assigning one of a plurality of classifications to each segment of the utterance, where each classification corresponds to at least one of a plurality of states of the user.

To establish *prima facie* obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art. See MPEP §2143.03. Therefore, it is respectfully submitted that the inventions of claims 7, 9, 20, 22, 33, 35, 47, 57, and 59 are also patentably distinct from Cooper and Pelland and that the inventions of claims 12-14, 25-27, 37-39, 50-52, and 61 are also patentably distinct from Cooper and Millie.

<div align="center">Respectfully submitted,</div>

Dated: _____ March 11, 2008   By: /Jae Won Song/ _____

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